

BULL, PINE, AND GOPHERSNAKE CARE SHEET

(Pituophis catenifer ssp.)

(Pituophis melanoleucus ssp.)

****For generalized, background information on snake care and husbandry, please see the "General Snake Care Sheet" first****

Gopher snakes and pine snakes are large colubrids found through much of North America and into northern Mexico. Generally speaking, gopher snakes occupy the western, southwestern, and central United States while pine snakes occupy areas of northern Mexico, the southeastern and eastern United States. These snakes are active and powerful constrictors that feed upon rodents and other small mammals, as well as ground nesting birds. They are extremely beneficial to the gardener, homeowner, and farmer since they consume vast quantities of rodents. Pine snakes and gopher snakes, when alarmed or agitated, will often mimic a rattlesnake quite convincingly by producing a loud raspy sounding hiss, and by rattling their tails in dry ground vegetation.

***Overall Difficulty Level: Novice-Intermediate**

Most Pituophis species are hardy snakes that possess very strong and reliable feeding responses. As such they do well in captivity provided keepers have a knowledge and understanding of general reptile (specifically snake) husbandry. However, Pituophis can become large, active, and muscular snakes that may not be suitable for younger children to handle alone unsupervised. Some species or particular specimens may be more irascible or prone to tail rattle, hiss, and/or strike when handled, which may be dissuasive to some novice reptile enthusiasts who may want a more docile and easily handled snake. Given the proper care, pine and gopher snakes can attain longevity of anywhere between 15 and 25 years in captivity, sometimes longer.

Gopher and Pinesnake Taxonomy

Kingdom: Animalia

Phylum: Chordata

Class: Reptilia

Order: Squamata

Suborder: Serpentes

Family: Colubridae

Subfamily: Colubrinae

Genus: Pituophis

Species Epithets:

Pituophis catenifer (Gophersnake)

Pituophis melanoleucus (Pinesnake)

Commonly Kept Pituophis Species

Bullsnake (*Pituophis catenifer sayi*): This large Gophersnake subspecies is wide ranging and occurs in the central and Western United States as well as northern Mexico and portions of western Canada. Bullsnares can vary in ground color from tan, yellowish, to reddish with darker brown to reddish brown dorsal blotches at mid body. Blotches towards the head and front third of the body are often much darker, while the posterior third of the body is typically yellowish with dark brown to black blotches grading into rings towards the tail. The head is often tan to yellowish with heavy dark mottling and a narrow band running across the forehead and eyes.

Sonoran Gopher Snake (*Pituophis catenifer affinis*): This subspecies is quite similar to the Bullsnake in appearance, but typically occurs further southwest within the United States and is usually slightly smaller, ranging from four to five feet on average (48-60”).

Pacific Gophersnake (*Pituophis catenifer catenifer*): This subspecies of gopher snake occurs in the coastal areas of Oregon and California. It is a variable colored subspecies that may be yellowish, light brown, to grayish in color with numerous square shaped reddish brown, brown, to black dorsal blotches and smaller lateral (or side) spots. Striped specimens are also common.

San Diego Gophersnake (*Pituophis catenifer annectens*): Occurring in Southern California to Mexico, this subspecies can be tannish, yellowish, or grayish in color with numerous square shaped brown, reddish brown, to black dorsal and lateral blotches (giving it a ladder like appearance) that may fuse together in many specimens.

Great Basin Gophersnake (*Pituophis catenifer deserticola*): This Gophersnake subspecies occurs from British Columbia, Canada, and through much of the western United States. Ground color can be tan, yellowish, to grayish in color with darker brown to reddish brown dorsal blotches at mid body grading into darker blotches and finally rings towards the tail. Dorsal blotches towards the head and neck are noticeably darker and are often fused together.

Northern Pinesnake (*Pituophis melanoleucus melanoleucus*): The nominate race of Eastern Pinesnake that is the most wide ranging of the Pinesnares in the sandy scrub and pinehills of Eastern North America. Ground color can vary from white, cream colored, tan, brownish, to sometimes reddish with large black to dark brown dorsal blotches that are most evident at mid body and towards the tail.

Southern/Florida Pinesnake (*Pituophis melanoleucus mugitus*): Occurs primarily within the Southeastern United States. Ground color can vary from tan, grayish, to cream colored with large irregular light brown to reddish brown dorsal blotches at mid body, often grading into more prominent reddish blotches towards the tail. Blotches on the neck and front third of the body are typically faded or quite obscured, and the head is typically an unpatterned tan to pale yellow.

Black Pinesnake (*Pituophis melanoleucus lodingi*): Occurs in the Southeastern and South central United States, from southern Alabama, to eastern Louisiana. It is typically much darker subspecies than most other Pituophis, with a brown, olive brown, to grayish with large dark brown to black blotches and bands towards the tail that are typically obscured in most adult animals, if not completely absent.

Size and Description

Hatchling Pituophis species are usually quite large, ranging anywhere from 12-20 inches in length. Adult size is variable depending on the species. Some of the largest species of pine and gopher snakes have been known to attain lengths of up to eight feet (96"). Other subspecies though will reach average adult sizes of four to six feet (48-72"). As a genus, Pituophis are large muscular colubrids with semi keeled scales and relatively small spade shaped (and sometimes heavily mottled) heads with slightly upturned rostral (nose) scales. Coloration and patterning can be variable among the species and even individuals. Pine snakes (*Pituophis melanoleucus*) can be yellowish, tan, cream colored, white, brownish, to grayish with dark black to grayish mottling on the fore third of the body, grading into dark brown, black, or reddish blotches, saddles, and rings towards the tail. Gophersnakes (*Pituophis catenifer*) can also be highly variable. The fore third of the body may be blackish with white mottling, grading into tan, tawny brown, or yellowish with brown to reddish brown dorsal and lateral blotches, stripes, and/or spots. In many Gophersnake species, the tail grades out into gold-yellow with black/dark brown blotches and rings.

Many different color and pattern morphs of pine snakes, bull snakes, and gopher snakes have been bred and produced in captivity. These include many different albinism strains and variants, Leucistics, Hypos, Axanthics, Anerythristics, "Salt and Pepper" phases, White Sideds, "Red" phases, Patternless, Snows, Lavenders, Ghost phases, Granites, and Fires to name a few.

Temperament and Handling

Pituophis seem to display a wide range of temperaments varying from species to species and among individual specimens. Some pine and gopher snakes are extremely calm, docile and hesitant to bite even when first encountered in the wild. Others on the opposite end of the spectrum can be quite irascible and are prone to hiss, tail rattle, or strike at the slightest disturbance (as is usually the case with most hatchling to juvenile snakes). In general however, many species of Pituophis tend to be more active and flighty snakes while in hand, unlike a boa or a ball python. If one desires to keep a tame and handle able Pituophis, the best course of action to take is to purchase a hatchling from a reputable source and frequently handle the animal on a regular basis. It should be kept in mind however that even a supposedly docile snake may bite or react defensively if suddenly startled or frightened or when food is detected (resulting in a feeding response bite). With patience and gentle handling, many Pituophis will become more tolerant of handling and can usually be easily handled (or at least less likely to become riled up) as adults.

Enclosure/Housing

The enclosure you choose must be secure to prevent the escape of the inhabitant and provide adequate ventilation. Hatchling to juvenile Pituophis can be maintained in a 20-30 gallon long glass terrarium with a secure screen top. Larger numbers of hatchling to juvenile gopher or pine snakes can be kept in commercially available rack systems consisting of appropriately sized plastic shoe or sweater box sized containers with holes punched or melted in for ventilation. These containers are made by Iris, Rubbermaid, and Sterilite. Racks are usually heated with Flexwatt heat tape either installed along the back wall of the rack as back heat or on the rear half of the floor of each slot as belly heat, and should be monitored with a quality thermostat.

Adult Pituophis do have the potential to become large depending on the species and bloodlines. These large colubrids may require 48" X 24" to 72" X 24" caging as adults. Commercially available plastic, wooden, melamine, or PVC enclosures with front opening sliding or hinged acrylic or glass doors can accommodate them. These types of enclosures provide increased security for snakes within them and space can be better utilized with them since they are stackable. Many of these types of enclosures are also available with built in lighting and heating elements, and temperature and humidity can be easily controlled within them. Adults can also be kept in commercially available rack systems consisting of appropriate sized sweater to blanket box sized containers (72 quarts), as previously described. Some commercially available rack systems designed for medium to large boas and pythons (such as ARS and Freedom Breeder caging) can also be used to house larger colubrids such as Pituophis.

A hide-box for allowing the snake to retreat from view is recommended as part of a terrarium setup as well. Besides commercially available hide boxes, you could modify many things to serve as a hide box. They can include opaque plastic storage container, plastic litter pans for cats, and inverted flowerpots for example. A water dish should also be provided within the enclosure and be changed at least once weekly or sooner if fouled. The dish should be heavy enough so that it isn't easily tipped over (plastic or ceramic crock dishes work well). It should also be cleaned and disinfected periodically.

Temperature and Heating

As with all reptiles, pine and gopher snakes are ectothermic animals, meaning it is important to provide them with an external heat source and thermal gradient for proper digestion and gestation. There should be a warm side and a cooler side to the enclosure. To create the warm side, you can use an under tank heater (UTH), Flexwatt heat tape, or a radiant heat panel on one half of the enclosure. Many commercially available plastic and PVC enclosures and racks come with their own heating elements. The warm side should remain around 87-90 degrees Fahrenheit. It is also important to disallow any snake to come into direct contact with any heating element, as thermal burns can result, and can sometimes be severe, requiring professional veterinary attention. UV or other overhead lighting is not required for most species of snakes. However, overhead UV lighting or fluorescent lighting can improve the cage's aesthetics as well as visibility within.

Substrate

The substrate is the enclosure's bedding. Newspaper, commercially available cage liner material, cypress mulch, or aspen shavings or Sani Chips are all acceptable substrates for any of the Pituophis species. Avoid pine and cedar shavings, as these substrates are toxic to snakes. The substrate should be kept dry and be spot cleaned when needed to reduce the likelihood of bacterial outbreaks. A complete substrate change and replacement should be done periodically as well, with that interval depending on the substrate being used.

Feeding and Diet

Bull, pine, and gopher snakes are powerful nonvenomous constrictors, although they will often simply seize and ingest smaller prey without constriction. They are voracious predators of rodents, pocket gophers, and other small mammals, as well as small birds and bird's eggs on occasion.

Most Pituophis hatchlings can be started off two to three times weekly on fuzzy or hopper rats. The size of the prey item should be increased accordingly as the snake grows. A general rule of thumb to follow is to offer prey items that are no larger than the widest point of the snake. Adult Pituophis can be offered medium or even large rats every five to seven days. It is important to not to overfeed your snake, since obesity and compromised health of the snake can result over time. Most Pituophis are quite eager feeders and seldom present any feeding difficulties for the most part.

Summary

In total, there are currently 11 recognized subspecies of the Gophersnake (including the Bullsnaek, *p. catenifer sayi*) generally occurring in the western and central United States and northern Mexico, and 3 recognized subspecies of what is known as the Eastern Pinesnake (*P. melanoleucus*) that generally occur in portions of the Eastern U.S. These large, impressive, and powerfully built colubrids have long been a favorite and commonplace mainstay for many within the herpetocultural hobby and industry, with the number of morphs and color variations among the species, and even localities, continuing to grow. While at least some specimens of most species may be somewhat irascible and/or to prone to putting on great bluffing displays (which can be off putting for new or novice keepers), most of these species, when handled and interacted with on a regular basis can make for quite traceable and active animals with great amounts of "personality" that seldom present any significant husbandry or feeding issues in captivity.